

to the lymph and bloodvessels, is even more important. The same tumour, according to its different locality, and again, in the same locality according to its different relations, may have a different significance. The sarcoma of the mediastina are the largest and most dangerous of all; next to these are certain forms of orbital sarcoma.

But we have already transgressed our proposed limits. The remainder of the volume is taken up with the consideration of melanosis and the melano-sarcoma of the eye. We shall endeavour to lay before the reader, at some future day, the concluding part of the work, in which the subject of sarcoma will be completed. E. T. C.

---

ART. XVIII.—*A System of Surgery, Theoretical and Practical, in Treatises by Various Authors.* Edited by T. HOLMES, M.A., Cantab, &c. In four volumes. Vol. IV. London: Longman, Green, Longman, Roberts & Green. 1864. pp. 1079, with a general Alphabetical Index and a list of the authors of the work and their contributions.

THE fourth volume of Mr. Holmes' "System of Surgery" has already taken its place as a remarkably successful and appropriate completion of the best library of surgery of the day, or at least of the most instructive representation of the science and art as they are now understood and taught by many of the leading British hospital surgeons.

If it were desirable to make comparisons, we should be inclined to say that the last volume is decidedly superior to its predecessors, and that, in this respect, it only excels the second and third volumes by a still greater progressive improvement, as much in the thorough discussion as in the character and practical importance of its topics. A careful re-examination of the whole work, however, would doubtless lead to an impression in favour of the earlier portions which would be more just to their authors without any depreciation of the admirable papers which are grouped together in the concluding series. At all events, there can be no doubt that these chapters are destined to maintain, if not increase, the high reputation of the work of Mr. Holmes as a practical and theoretical authority—alike useful in direct application to practice and for reference in more extended scientific study. The essays are, all, sufficiently clear and full in their practical directions and various details, suggested by large hospital experience, to render them invaluable to the young practitioner, at the same time that their marginal references are ample for the purposes of the most exacting scientific reader. The remark of the editor in his preface is a very just one, that "by consulting the chief authors quoted and referred to in each essay, the student will obtain a tolerably complete list of the best monographs on surgical subjects in the English language;" and it is just this completeness of reference, in combination with so much that is practical in character and directly based on personal experience, enlightened by extended learning, which renders these essays, of themselves, a library collection of the highest character, for the purposes intended, and entitles them to take rank along with the first class monographs alluded to, if not to be regarded as actually such themselves. This may seem extravagant praise to be applied to some of the articles in the present volume and in

the previous volumes, as it really would be considering the nature of the topics and the intention of the writers in restricting their discussion; but it is reasonably true of other and many papers in the fourth volume, as it is, also, of several in the first, second, and third. Some of these latter have been pointed out in previous notices, and we hope to indicate a few of the former on the present occasion.

It is impossible, however, to give a full account of over one thousand closely printed octavo pages of such matter, in the very superficial and cursory sketch to which we are unavoidably confined. Analysis and discussion are both discouraged by the extent and richness of the field displayed to view. The amount of comparatively new material and the compactness and general brevity, notwithstanding the bulk of the resulting whole, render it difficult to enter into any selections for purposes of comment and quotation.

Diseases of the Organs of Digestion, of the Genito-Urinary System, of the Breast, Thyroid Gland and Skin, and an appendix of miscellaneous subjects, constitute the subjects of the different chapters of the volume before us. In the Appendix are presented Surgical Diseases of Childhood, Surgical Fever, Apnoea, Parasites and the consequent Diseases, Venomous Insects and Reptiles, Surgical Diagnosis and Regional Surgery, Hospitals, Surgical Instruments and Apparatus.

In the first class of disorders—those of the organs of digestion—we have a very interesting and practical sketch of the surgical diseases connected with the teeth by S. James A. Salter, Esq. The first subject treated of, Alveolar Abscess, is so commonly met with in private practice and so frequently injurious in its effects, that the very clear account of it here presented and the excellent advice as to the proper mode of treatment, ought to be read by every practitioner of medicine and surgery, if not by every dentist, in the country. Mr. Salter urges the extraction of the diseased or dead tooth, in all cases, as “the cure,” and tells us that he knows of but “two circumstances which peremptorily interdict this mode of treatment.” These are a strongly hemorrhagic diathesis, and the cases in which the abscess occurs near the upper incisor teeth of young people in whom the jaws have not yet assumed their adult form, and where the permanent dentition is as yet incomplete. He admits that, “in a few exceptional instances,” the disease ceases altogether without the removal of the offending tooth; also that it is often undesirable to extract a particular tooth that may be threatening or causing the abscess, and he suggests, in such cases, the usual temporizing remedies; but he fairly tells us that the disease remains in the vast majority of cases in the form of a pus-discharging fistula, and that in the earliest period, “when suppuration is rather impending than established,” the malady may be cut short by the extraction of the affected tooth or by the removal of the stopping in a stopped tooth. The period of active inflammation with pain, swelling, and suppuration is, of course, not the time for active interference, except with leeches and the lancet to the gum; but we have seen so much trouble arising from repeated attacks in the same process while the tooth remained, that we have long been in the habit of regarding the dead tooth as a foreign body—“the equivalent of a sequestrum,” as Mr. Salter justly names it—and have recommended its extraction, often in opposition to the dentist’s advice, so soon as the acute attack had subsided, in the great majority of adult cases.

Of the other disorders noticed, those which most attracted our attention were: 1. Alveolar and maxillary necrosis from phosphorus fumes and

from eruptive fevers; and 2. Hemorrhage after extraction. The first of these, maxillary necrosis, has been rare in this country, although the phosphorus variety is likely to increase in prevalence with the recent development of lucifer match manufacturing. Mr. Salter's whole account, although written in the spring of 1862, is well brought up and extremely interesting. He refers to a case in the London Hospital, under the care of Mr. Adams, subsequently reported in the *Medical Times and Gazette*, July 5, 1862, in which the whole of the lower jaw was necrosed and had to be removed, including the condyles. A very similar case has recently been under the care of Dr. Wm. Hunt, in the Pennsylvania Hospital, Philadelphia, and is reported in the present number of this Journal, in which the necrosed lower jaw was removed. The patient is still doing well, the contour of the chin and rest of the external base line of the countenance being wonderfully preserved, so as greatly to lessen the deformity by reducing the enlargement due to the exfoliating mass of necrosed bone, instead of destroying the jaw outline by removing its bony support. This case was exhibited to the College of Physicians of Philadelphia about six weeks after the operation, and then presented a very satisfactory result.

The practical rule is to avoid a too early interference, especially with the lower jaw, where the supplemental bone formation is so essential and of such slow growth. This repair of the lower jaw, however,

"Is but temporary; for after a time—often a considerable time—the new bone diminishes, by absorption, to a mere narrow arch, and ultimately there is scarcely enough bone to keep out the lower lip and the chin is utterly lost. I have had an opportunity of examining this state of parts after the lower jaw had been removed ten years. How far this loss, by absorption of supplemental bone, may be prevented by supplying it with a function, through the means of artificial teeth, is a question of theoretical interest and of practical importance." p. 47.

In regard to hemorrhage after teeth extraction we can refer only to the author's judicious remarks on the importance of considering the "general and diathetic nature of alveolar hemorrhage in devising its proper treatment." He very wisely objects to operative measures, inasmuch as "anything which would increase the wound or add a fresh one (such as the cautery or the ligature of an arterial trunk) is contraindicated."

In a bleeding socket, the old plan of plugging with lint or lint and turpentine is mentioned as the universal method of local treatment. We have found this to be the most certain, but prefer a paste of persulphate of iron and pulverized alum with water, instead of turpentine, along with the lint, especially if the oozing of blood be not confined to one cavity, as is sometimes the case. Mr. Salter recommends "the rapid and abundant administration of internal astringents" and mentions tannin and turpentine as the most successful. He also suggests the "muriate tincture of iron," but fails to speak of gallic acid, the perchloride and the persulphate of iron, but especially of the importance, in the not unfrequent instances of excessive arterial and cardiac excitement, of moderating this injurious action with digitalis, veratrum viride, or other analogous therapeutic agents. We are convinced that the opinion of some of the best writers, to this effect, as to the employment of digitalis and other arterial sedatives and sedative agencies, is frequently sustained in actual practice.

Excellent and comprehensive though short essays by Dr. A. W. Barclay on the two different but still confounded diseases, Diphtheria and Croup, including incidentally some reference to a near relation of the former of

these, Scarlet Fever, occupy the next sixteen pages, and are followed by an extremely interesting and valuable monograph by G. D. Pollock, Esq., on Diseases of the Mouth and Alimentary Canal. There are many remarks of practical importance which might be dwelt upon with advantage in relation to various disorders of the mouth and throat and to tumours of the jaws, but we can refer only to the section on staphylocoraphy. This is especially interesting and instructive in its very full and careful discussion of the whole subject of cleft palate (including respectful mention of our countrymen, Mason Warren, Mettauer, Mütter, and Pancoast, along with Roux, Cloquet, Dieffenbach, Avery, and Fergusson) and in the descriptions of the various modes and steps of the operation, as applied to different forms of the infirmity. Diseases of the alimentary canal, by the same able author, follow in a still more valuable series of short articles, which affords an admirable view, particularly rich in illustrative cases, of abdominal abscess, fecal abscess, and the many acute and chronic species of intestinal obstruction, with the operations resorted to for their palliation or removal.

A complete, but comparatively brief summary chapter on Diseases of the Rectum, by H. Smith, Esq., comes next in order. The author manages to tell us in forty-four pages all that it is important to know about these most troublesome disorders, and does so in an abundantly clear and practical manner.

The monographs on Hernia, and on Diseases of the Urinary Organs, by Messrs. John Birkett and Henry Thompson, respectively, are two of the best in the volume, if not in the whole collection. They are remarkable specimens of condensed, yet thorough and exhaustive practical and theoretical contributions on their respective topics, in the light of the latest experience and research, by writers whose reputation is already very high in connection with these especial subjects.

"The whole subject of hernia," as treated by Mr. Birkett, is divided into two parts: the first embracing general considerations in relation to the statistics, pathology, and treatment of the disease; and the second being devoted to an examination of the special regional varieties of hernia, their anatomical characteristics, etiology, diagnosis, and the treatment especially adapted to each kind.

The statistics are entitled to more than usual confidence, as they are derived from the records of the City-of-London Truss Society, reported by Mr. Kingdon, and based upon a gross total of 96,886 applicants for trusses. Mr. Kingdon estimates the proportion of cases, including every variety of hernia, for all ages, between the two sexes, to be two males to one female; this proportion varying considerably, however, at different periods of life, on account of causes connected with certain congenital malformations in the male, which are spoken of in treating of the special forms of hernia. Mr. Kingdon is quoted also for the only trustworthy facts relating to the ages at which hernial protrusions are first developed. In the reports, for 1860 and 1861, of the London Truss Society, 9,296 cases of inguinal and femoral hernia are tabulated, all of which passed under Mr. Kingdon's personal examination; the respective age of each individual at the date of the first hernial protrusion being ascertained, as nearly as possible, by reckoning back to the age at which it was first noticed. Most records, hitherto, have presented only the age of the patients at the date of their application for relief. Under this mode of observation M. Malgaigne has shown that there are fewer cases of hernia before thirty-five years of age than after; which must be an error, on account of the greater

liability in early life from congenital defects. Mr. Birkett is induced, by his own observations, as well as by Mr. Kingdon's results, to believe that the majority of cases, taking all varieties in both sexes, are developed before thirty-five years of age. Out of Mr. Kingdon's 9,296 cases 5,659, or 60.8 per cent., had commenced before thirty-five years of age; and 3,637, or 39.2 per cent., after that age.

The question of hereditary predisposition, also, has been carefully investigated by Mr. Kingdon. Both sexes seem to be influenced alike, the proportion of the whole being about 34 per cent. Infants under one year are most frequently the subjects of the hereditary predisposition from both parents, the proportion to the whole number of cases within twelve months after birth being about twelve per cent. This fact points "to two very important causes which give rise to hernial protrusion at this early age: first, to the arrested efforts of nature in closing the ventral orifice of the vaginal process of the peritoneum and the obliteration of that sheath; and, secondly, to an abnormal elongation of the mesentery"—two structural conditions which belong to a class of anomalies very likely to be determined by hereditary influences. These conditions have been very closely studied by Mr. Birkett, and are fully discussed in connection with the pathology and treatment, particularly of certain varieties of hernia. Still more recently he has made the varieties of inguinal hernia dependent on abnormal conditions of the vaginal process of the peritoneum the subject of a very practical contribution to the *Guy's Hospital Reports* for 1864.

The enlightened practical character of Mr. Birkett's views is well shown in the manner in which he enforces the paramount importance, in many points of view, and especially in the surgical treatment of hernia, of a full appreciation of the physiological differences between the "congenital hernial sac," which is the unclosed or patulent vaginal process of the peritoneum, and what he calls the "acquired hernial sac," which is an elongation of the parietal peritoneum, resulting from a slow, gradual process of relaxation, under the pressure of the contained viscera and ultimate hernial contents.

The use of a truss, for instance, and the amount of benefit to be derived from it must depend, in a great degree, upon the kind of sac concerned. In the one case, of congenital predisposition, a resort to the "palliative measures"—to a proper truss in short—at once upon the discovery of a hernial descent into the patulent vaginal process or of a tendency to this descent, the progress of the hernia may be arrested and the tendency, in not a few instances, entirely removed by the ultimate obliteration of the congenital canal. In the slowly-forming hernial sac, on the other hand, the truss must be employed to prevent development of the sac by mechanical support, if the hernia is sufficiently recent; or, in case of the formation of the sac, as in most instances when the surgeon is first consulted, it can be used only to retard the further dilatation and obviate the danger of strangulation by preventing the "descent of the rupture." "Whether the hernia occurs in infancy, youth, at middle age, or at later periods of life," says our author in urging the necessity for *skilled* mechanical treatment of every variety of hernia, "if properly watched and judiciously supported, it usually gives but little trouble; in many cases it is even cured. But, on the contrary, if it be neglected, increase in bulk, and, sooner or later, diseased states of the rupture, often leading to the death of the individual, will almost infallibly occur." This doctrine would seem, to most hospital surgeons, to be too well established and generally admitted to be worth repeating here; and yet how many regular practitioners are perfectly

willing to leave these cases to the mercenary ignorance and pretentious interference of mere mechanics and bandage vendors! How many enterprising operators, on the other hand, are indisposed to believe in the possibility of curing any form of hernia with the aid of trusses only, and are ready to insist upon the "so-called radical cure" as the proper remedy!

We are glad to be confirmed in an already well-settled conviction as to the uncertainty and consequent objectionable character of the operation for the invagination of the hernial sac, which has been so frequently performed, of late years, in various modes, under the lead of Gerdy, Wutzer, and others. The statistical records are still very incomplete, but there can be no question, not only that many failures have taken place, but that many of these unsuccessful cases had been previously reported as cures. There is no doubt, either, of the danger of the operation, although that has probably been overrated. Unless, therefore, after having recovered from the injurious effects of the operation, the patient is enabled to do without a truss, by a permanent closure of the hernial sac, including its ventral orifice, and a general strengthening of the weak parts of the abdominal walls, together with an improved tone of the peritoneal ligaments of the viscera—all of which are necessary to maintain the formerly protruding bowels in their normal situation—the "radical cure" practice is, to use our author's language, "surely scarcely justifiable." This is the old rule of Mr. Lawrence, quoted by our author at the conclusion of his own remarks, and has not yet been overturned by the experience of recent operators.

We cannot give the details of Mr. Birkett's facts, derived especially from the observations of Mr. Kingdon in London, and of Dr. O. Weber of Bonn, who was formerly clinical assistant to Prof. Wutzer, and shall only add a remark in regard to the principle which should govern the selection of cases for the performance of all operations for the radical cure. Mr. Birkett reminds us that the unclosed vaginal process may become obliterated, even after a hernia has passed into it in early infancy, but that there is no evidence that the same obliteration may ever occur to an acquired hernial sac, except perhaps in the rare instance of a plug of adherent omentum. Hence he enunciates the rule that the proper cases for the invaginating method are those only "in which the protruded viscus has descended into a patent vaginal process of the peritoneum, and that all other kinds should be rejected as unsuitable; and that the more efficiently the proposed methods accomplish the ends effected by the processes of nature, the more worthy of confidence they become." (p. 245.)

We should be glad to devote some space to other portions of this most interesting paper, especially to the various practical points in the history and treatment of strangulation, the description of the different varieties of hernia, and the excellent tabular arrangements of the diagnostic signs; but the numerous essays still to be glanced at in the remaining seven hundred pages of the volume demand a more restricted survey than we have thus far been tempted to indulge in.

Having this idea in view we shall confine ourselves to a single quotation from the essay of Mr. H. Thompson, on the Surgery of the Urinary Organs, although pages might readily be filled with useful comments on this and the subsequent papers. The readers of this journal may, or ought to, be already familiar with many of the views of this able and most judicious writer and practitioner, through the notices of his various works which have been presented already in our pages; so that there is less reason for dwelling on them here. There are, however, some general remarks which

are so eminently sound and forcible that we quote them for the especial benefit of specialists and other practitioners, whose dog-in-the-manger tendency it is to limit their practical resources, by narrowing their own view, while they would endeavour to supersede their professional neighbours in the vain pretence of devotion to a single class of diseases, and hence of superior knowledge and skill as the result of such devotion.

In introducing the subject of Diseases of the Urinary Organs he tells us that :—

“Few things conduce more to error in estimating symptoms than a too exclusive specialism in the observation of disease. The study of stricture and of other forms of urethral obstruction, of vesical diseases, of calculous formations, and of those chronic changes in the secreting structure of the kidney, which are conventionally assigned to the province of the physician, must be pursued together if the surgeon is properly to appreciate the import of any one of these affections.”

Insisting on the necessity for the surgeon to be personally cognizant of the condition of the kidneys, through a direct examination of the chemical and microscopical characters of the urine of his patient, before undertaking any important operation on the bladder or urethra, and this without the intervention of a physician or any other observer than himself, he continues :—

“Not only is the knowledge easy to attain and convenient to possess, but it may be safely held that the surgeon who views with equal intelligence the lesions, both functional and organic, which affect the kidneys, the bladder and the urethra, will be, *cæteris paribus*, the safest and most successful adviser in the ailments of any one of these viscera.”

He further says :—

“I do not hesitate to affirm that no man can deal adequately and safely with cases of impaired urinary function, whose hand is not well trained to the use of the sound or catheter, whose eye is not familiar with urinary deposits in all their varieties of crystals, corpuscles, and renal casts, and who is not acquainted with their indications, so far as these are known, as well as with the significance of those subjective phenomena which are found accompanying them. The exploring sound is quite as essential to the diagnosis of urinary disease as the stethoscope is to affections of the chest. He who is a physician only will (and does) constantly overlook calculus and stricture to the great detriment of the patient; while the mere surgical handicraftsman will (and does) treat mechanically many a case which can only be injured by his manipulations. With these views, the careful study of all acute and chronic renal affections is recommended to the student who desires to qualify himself specially for the practice of surgery.” pp. 327, 328.

These are the sentiments long ago expressed, with equal clearness and force, in his admirable prize essay on Stricture of the Urethra, by Mr. Thompson; they are equally appropriate and useful in their new position, and we gladly welcome them again.

Next in order are presented short but very complete papers On Urinary Calculi and Lithotomy, by A. Poland, Esq.; Lithotrity, by Charles Hawkins, Esq.; Surgical Diseases of Women, by J. Hutchinson, Esq.; Diseases of the Male Organs of Generation, by G. M. Humphrey, M. D.; Gonorrhœa, by H. Lee, Esq., and J. A. Marston, Esq., M. D.; Diseases of the Breast, by J. Birkett, Esq.; Diseases of the Thyroid Gland, by Holmes Coote, Esq.; and finally, Diseases of the Skin, in two parts, the first one on General or

Constitutional Affections, by Dr. Jenner and Dr. Hillier, and the second on Local or Surgical Affections of the Skin and its Appendages, by T. Smith, Esq.

Then we have the Appendix, on certain miscellaneous subjects which may be enumerated in their own order of succession. Surgical Diseases of Childhood, by T. Holmes, Esq., including Congenital Dislocation and Intra-Uterine Fracture, by B. Brodhurst, Esq., and Lateral Distortion of the Spine, by A. Shaw, Esq., come first; and are followed by papers On Surgical Fever, by J. Croft, Esq.; Apnœa, by G. Harley, Esq.; On Parasites, and the Diseases which they Produce, by G. Busk, Esq.; Venomous Insects and Reptiles, by G. Busk, Esq.; Surgical Diagnosis and Regional Surgery, by T. Holmes, Esq.; On Hospitals, by Sir J. Ranald Martin; and lastly, On Surgical Instruments and Apparatus, by Holmes Coote, Esq., and J. C. Wordsworth, Esq.

The foregoing list will serve at least to give an idea of the numerous and even unusual subjects treated, and of the very wide range of topics embraced within the plan of the work, in accordance with the promise of the accomplished editor.

We have no complaint to utter against either the matter or manner of these individual papers, and only regret our inability to present the detailed and particular notice of each one which a careful examination has shown them to be fully entitled to; at the same time that such a *résumé* of their leading points would be practically useful, could it be brought within reasonable bounds.

Several of the essays in the previous volumes have struck us as well worth a separate publication, and two or three of them have been reprinted in this manner. Indeed, one of these, Longmore's paper on gunshot wounds, has been reprinted in this country, and republished in a second edition in London. The same desire has suggested itself in regard to certain essays of the fourth volume. A number of them are summaries or compends, somewhat in advance, perhaps, but otherwise not very different from larger works, by the same authors, already well known. A few, however, are really new, or so compact, well arranged and practically useful, that we should be glad to see them circulating far more widely, especially in this country, than is practicable in their present form; such, for instance, as the paper on hernia, and those on surgical diagnosis and regional surgery and on hospitals, and that on apnœa. We do not, by this selection, wish to exclude others from a similar prominence, for there are several which appear to us to deserve a separate publication; but the papers particularly mentioned are suggested as being likely, on account of their character and topics, to be most generally sought after and most generally useful.

The study of hospital construction and management, whether for civil or military purposes, is by no means a novel one, in this country, as the recent excellent work on Military Hygiene of Dr. Hammond, as well as other minor publications, would amply serve to show. Nor are we ignorant of much that has emanated from recent writers on the subject—and, above all, from the enlightened and prolific pen of that wonderful instructress of the ablest men of her day, including the "confidential" blue book records of her testimony before the British Government Commission; still, we have found Sir J. Ranald Martin's tract on hospitals so full of the results of the general British and Continental experience and research, as well as of the precepts of Miss Nightingale—all so thoroughly condensed and clearly arranged, that we do not hesitate to urge its republication as an act of



humanity alone; and we sincerely hope that the Sanitary Commission may add one more claim to the gratitude of the country by presenting us with an American edition, with such notes and comments as the vast home experience and study of the past four years may suggest. Such a combination could not fail to prove as welcome a gift in return to the able author, and his still more distinguished monitress, as his and her works have been to us.

E. H.

---

ART. XIX.—*Lectures on the Diseases of the Stomach, with an Introduction on its Anatomy and Physiology.* By WILLIAM BRINTON, M. D., F. R. S., Physician of St. Thomas's Hospital. Second Edition. 8vo. pp. 368. London, 1864.

THE diseases of the stomach are among the most frequent for which the physician is called upon to prescribe, while they are among the most obscure in their symptomatology and difficult in their diagnosis. Consequently no class of diseases, probably, has been heretofore to a greater extent mismanaged. A very cursory examination of the treatment laid down as that proper in gastric affections generally, by our leading medical authorities of even a recent date, will show how much it partakes of empiricism, to how little an extent, at least, it is founded upon correct views of the physiology of the stomach, or of the nature of its several pathological conditions; how little it is sanctioned by the general results of clinical observation. Every attempt, therefore, made in the right direction, to remove, even in part, the obscurity and uncertainty in which the etiology, symptomatology, and pathology generally, of the diseases of the stomach have been involved, and to render more clear and positive their remedial and hygienic treatment, claims our most earnest attention.

Such an attempt has been made by Dr. Brinton in the lectures before us; and we think that he has to a very great extent succeeded in its accomplishment. He has availed himself of whatever facts bearing upon the subject are to be found in the records of the medical experience of different epochs and countries; these he has carefully compared with each other and with his own observations made during twelve years as a dispensary and hospital physician, in order to test, as far as possible, their accuracy and true bearing.

The results of his investigations and personal experience were embodied by Dr. Brinton in a course of lectures delivered by him to a class composed of the more advanced students of St. Thomas's Hospital, London. These lectures, with many additions and amendments, are those embraced in the volume before us. Among the additions is an introductory section presenting a summary of the anatomy of the stomach, and of all that is at present known in respect to its physiology. We would call particular attention to this portion of the work as one of peculiar excellence and accuracy.

The first of the eight lectures of which the volume is composed is devoted to a general consideration of the leading symptoms of stomachic disease—pain, eructation, regurgitation, vomiting, hemorrhage, and flatulence. The characteristics of each of these symptoms, together with its greater or less prominence under particular circumstances, its significance, its value as a pathognomonic sign, and its mode of production, are carefully examined.